

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Ashok Singhal, David J. Broniarczyk, George R. Cameron, and Jeff A. Price  
Assignee: 3PAR Inc.  
Amended Title: Communication Link Protocol Optimized for Storage Architecture  
Serial No.: 09/751,649 Filing Date: December 29, 2000  
Examiner: Steve N. Nguyen Group Art Unit: 2133  
Docket No.: M-8495 US  
(3PD-M-8495 US)

San Jose, California

COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

**WRITTEN CONSENT BY ASSIGNEE TO CORRECT INVENTORSHIP**  
**UNDER 37 C.F.R. § 1.48(a)**

I, Alastair Short, am the general counsel of 3PAR Inc., the Assignee of the above-identified patent application. I hereby grant written consent on behalf of the Assignee to add Jeff A. Price as an inventor to the present application.

3PAR Inc. is the assignee of the entire right, title, and interest in the patent application identified above by virtue of a chain of title from the inventors of the patent application identified above to the Assignee as follows:

1. From: Ashok Singhal et al. To: 3PARdata, Inc.

The document was recorded in the United States Patent and Trademark Office at Reel 011428, Frame 0684, a for which a copy thereof is attached.

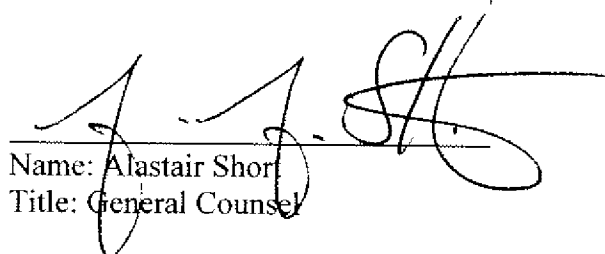
2. From: 3PARdata, Inc. To: 3PAR Inc.

The document was recorded in the United States Patent and Trademark Office at Reel 020571, Frame 0664, a for which a copy thereof is attached.

As required by 37 C.F.R. § 3.73(b)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was submitted for recordation pursuant to 37 C.F.R. § 3.11.

The undersigned (whose title is supplied below) is authorized to act on behalf of the Assignee.

Dated: July 7, 2008

  
Name: Alastair Short  
Title: General Counsel



*M-8495*  
**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

MARCH 28, 2001

PTAS

SKJERVEN MORRILL MACPHERSON LLP  
PHILIP W. WOO  
25 METRO DRIVE, SUITE 700  
SAN JOSE, CA 95110

RECEIVED  
BY DOCKET DEPT.



\*101586077A\*

APR 03 2001

SKJERVEN, MORRILL, MACPHERSON,  
LLP.

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

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PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 12/29/2000

REEL/FRAME: 011428/0684  
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

SINGHAL, ASHOK

DOC DATE: 12/21/2000

ASSIGNOR:

BRONIARCZYK, DAVID J.

DOC DATE: 12/21/2000

ASSIGNOR:

CAMERON, GEORGE R.

DOC DATE: 12/21/2000

ASSIGNEE:

3PARDATA, INC.  
4215 TECHNOLOGY DRIVE  
FREMONT, CALIFORNIA 94538

SERIAL NUMBER: 09751649

PATENT NUMBER:

FILING DATE: 12/29/2000  
ISSUE DATE:

*AWW*

*FDS  
CK Priority Claimed  
Status  
RD*

*3/29/01  
4/29/01  
12/29/02  
4/13/01*

011428/0684 PAGE 2

SHARON LATIMER, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

RE

01-18-2001

MAD 13-29-00



101586077

To the Honorable Director of the United States  
thereof.

the attached original documents or copy

## 1. Name of conveying party(ies):

- (a) Ashok (nmi) Singhal  
(b) David J. Broniarczyk  
(c) George R. Cameron

Additional name(s) of conveying party(ies) attached?

☐ Yes ☒ No

## 2. Name and address of receiving party(ies):

Name: 3PARdata, Inc.Street Address: 4215 Technology DriveCity: Fremont State: CA

Zip:

Country: USA

## 3. Nature of Conveyance:

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other \_\_\_\_\_

Execution Date: December 21, 2000

## Name and address of receiving party(ies):

Name: (Same as above)

Street Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Country: \_\_\_\_\_

## 4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

## A. Patent Application No.(s) -

Title: COMMUNICATION LINK PROTOCOL OPTIMIZED FOR  
STORAGE ARCHITECTURES

## B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No5. Name and address of party to whom correspondence  
concerning document should be mailed:Name: Philip W. WooInternal Address: SKJERVEN MORRILL MacPHERSON LLPStreet Address: 25 METRO DRIVE, SUITE 700City SAN JOSE State CA ZIP 951106. Total number of applications and patents involved: 1

## 7. Total fee (37 CFR 3.41): ..... \$40.00

- ☒ Authorized to be charged to Deposit Account 19-2386  
☒ Charge Deposit Account 19-2386 for any additional fees  
required for this conveyance and credit deposit account  
19-2386 any amounts overpaid

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01/17/2001 MTHAI1 00000184 192386 09751649

## 8. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy  
of the original document.Philip W. Woo 39,880  
Name of Person SigningPhilip W. Woo  
Signature12/29/00  
DateTotal number of pages comprising cover sheet: 1



Executed this 21 day of December, 2000.

David J. Broniarczyk

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) ss.

On \_\_\_\_\_ before me, \_\_\_\_\_ personally appeared \_\_\_\_\_ personally known to me or proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is(are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

SIGNATURE OF NOTARY

Executed this 21 day of December, 2000.

George R. Cameron

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) ss.

On \_\_\_\_\_ before me, \_\_\_\_\_  
personally appeared \_\_\_\_\_ personally known to me  
or proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is(are)  
subscribed to the within instrument and acknowledged to me that he/she/they executed the same in  
his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the  
person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

SIGNATURE OF NOTARY

PATENT LAW GROUP LLP COMPANY:2635 NORTH FIRST ST., SUITE 223

**UNITED STATES PATENT AND TRADEMARK OFFICE**UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND  
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

\*500475511A\*

FEBRUARY 28, 2008

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PATENT LAW GROUP LLP  
2635 NORTH FIRST ST., SUITE 223  
SAN JOSE, CA 95134UNITED STATES PATENT AND TRADEMARK OFFICE  
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RECORDATION DATE: 02/28/2008

REEL/FRAME: 020571/0664

NUMBER OF PAGES: 11

BRIEF: CHANGE OF NAME (SEE DOCUMENT FOR DETAILS).  
DOCKET NUMBER: 3PD-GENASSIGNOR:  
3PAR DATA, INC.

DOC DATE: 07/31/2007

ASSIGNEE:  
3PAR INC.  
4245 TECHNOLOGY DRIVE  
FREMONT, CALIFORNIA 94538

SERIAL NUMBER: 09751649

FILING DATE: 12/29/2000

PATENT NUMBER:

ISSUE DATE:

TITLE: COMMUNICATION LINK PROTOCOL OPTIMIZED FOR STORAGE ARCHITECTURES

SERIAL NUMBER: 09883681

FILING DATE: 06/18/2001

PATENT NUMBER:

ISSUE DATE:

TITLE: NODE CONTROLLER FOR A DATA STORAGE SYSTEM



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020571/0664 PAGE 2

SERIAL NUMBER: 10138990 FILING DATE: 05/02/2002  
PATENT NUMBER: ISSUE DATE:  
TITLE: RESERVING A SHARED VOLUME IN A MULTIPLE NODE DATA STORAGE SYSTEM

SERIAL NUMBER: 10194606 FILING DATE: 07/12/2002  
PATENT NUMBER: ISSUE DATE:  
TITLE: CLUSTER INTER-PROCESS COMMUNICATION TRANSPORT

SERIAL NUMBER: 10227077 FILING DATE: 08/21/2002  
PATENT NUMBER: ISSUE DATE:  
TITLE: UNIVERSAL DIAGNOSTIC HARDWARE SPACE ACCESS SYSTEM FOR FIRMWARE

SERIAL NUMBER: 10642379 FILING DATE: 08/14/2003  
PATENT NUMBER: ISSUE DATE:  
TITLE: PERIODIC MODE REMOTE MIRRORING

SERIAL NUMBER: 10655951 FILING DATE: 09/04/2003  
PATENT NUMBER: ISSUE DATE:  
TITLE: TIME AND SPACE EFFICIENT TECHNIQUE FOR CREATING VIRTUAL VOLUME COPIES

SERIAL NUMBER: 11173101 FILING DATE: 07/01/2005  
PATENT NUMBER: ISSUE DATE:  
TITLE: PROTECTED USER-CONTROLLABLE VOLUME SNAPSHOTS

SERIAL NUMBER: 11269024 FILING DATE: 11/07/2005  
PATENT NUMBER: ISSUE DATE:  
TITLE: REGION MOVER APPLICATIONS

SERIAL NUMBER: 11269399 FILING DATE: 11/07/2005  
PATENT NUMBER: ISSUE DATE:  
TITLE: REGION MOVER

SERIAL NUMBER: 11280828 FILING DATE: 11/15/2005  
PATENT NUMBER: ISSUE DATE:  
TITLE: REDUCING LATENCY IN SCSI PROTOCOL

SERIAL NUMBER: 11552107 FILING DATE: 10/23/2006  
PATENT NUMBER: ISSUE DATE:  
TITLE: DUAL DATA RATE MEMORY STROBE CHECKER

SERIAL NUMBER: 11608241 FILING DATE: 12/07/2006  
PATENT NUMBER: ISSUE DATE:  
TITLE: TRAINABLE LINK

SERIAL NUMBER: 11614031 FILING DATE: 12/20/2006  
PATENT NUMBER: ISSUE DATE:  
TITLE: MIX MODE DRIVER FOR TRACES OF DIFFERENT LENGTHS

SERIAL NUMBER: 11626265 FILING DATE: 01/23/2007  
PATENT NUMBER: ISSUE DATE:  
TITLE: VOLTAGE REFERENCING CLOCK FOR SOURCE-SYNCHRONOUS MULTI-LEVEL SIGNAL BUSES

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SERIAL NUMBER: 11681738 FILING DATE: 03/02/2007  
PATENT NUMBER: ISSUE DATE:  
TITLE: ARCHIVING LOGS WITH SNAPSHOTS FOR DATA RECOVERY

SERIAL NUMBER: 11738396 FILING DATE: 04/20/2007  
PATENT NUMBER: ISSUE DATE:  
TITLE: FAST RESYNCHRONIZATION OF DATA FROM A REMOTE COPY

SERIAL NUMBER: 09990117 FILING DATE: 11/21/2001  
PATENT NUMBER: 6502702 ISSUE DATE: 01/07/2003  
TITLE: RACK CABINET AND METHOD FOR MAKING SAME

SERIAL NUMBER: 09990106 FILING DATE: 11/21/2001  
PATENT NUMBER: 6657868 ISSUE DATE: 12/02/2003  
TITLE: ELECTRONIC DEVICE MOUNT ASSEMBLY

SERIAL NUMBER: 09633088 FILING DATE: 08/04/2000  
PATENT NUMBER: 6658478 ISSUE DATE: 12/02/2003  
TITLE: DATA STORAGE SYSTEM

SERIAL NUMBER: 09773111 FILING DATE: 01/31/2001  
PATENT NUMBER: 6677831 ISSUE DATE: 01/13/2004  
TITLE: DIFFERENTIAL IMPEDANCE CONTROL ON PRINTED CIRCUIT

SERIAL NUMBER: 10840956 FILING DATE: 05/07/2004  
PATENT NUMBER: 6823442 ISSUE DATE: 11/23/2004  
TITLE: THIN-PROVISIONING WITH SNAPSHOT TECHNOLOGY

SERIAL NUMBER: 09755285 FILING DATE: 01/04/2001  
PATENT NUMBER: 6833634 ISSUE DATE: 12/21/2004  
TITLE: DISK ENCLOSURE WITH MULTIPLE POWER DOMAINS

SERIAL NUMBER: 09990121 FILING DATE: 11/21/2001  
PATENT NUMBER: 6833995 ISSUE DATE: 12/21/2004  
TITLE: ENCLOSURE HAVING A DIVIDER WALL FOR REMOVABLE ELECTRONIC DEVICES

SERIAL NUMBER: 10194685 FILING DATE: 07/12/2002  
PATENT NUMBER: 6965957 ISSUE DATE: 11/15/2005  
TITLE: AUTOMATIC CLUSTER JOIN PROTOCOL

SERIAL NUMBER: 09751994 FILING DATE: 12/29/2000  
PATENT NUMBER: 6973484 ISSUE DATE: 12/06/2005  
TITLE: METHOD OF COMMUNICATING DATA IN AN INTERCONNECT SYSTEM

SERIAL NUMBER: 10636145 FILING DATE: 08/06/2003  
PATENT NUMBER: 7032093 ISSUE DATE: 04/18/2006  
TITLE: ON-DEMAND ALLOCATION OF PHYSICAL STORAGE FOR VIRTUAL VOLUMES

SERIAL NUMBER: 09754903 FILING DATE: 01/04/2001  
PATENT NUMBER: 7036033 ISSUE DATE: 04/25/2006  
TITLE: A DISK ENCLOSURE WITH MULTIPLEXERS FOR CONNECTING 12C BUSES IN  
MULTIPLE POWER DOMAINS

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SERIAL NUMBER: 10222390 FILING DATE: 08/16/2002  
PATENT NUMBER: 7036042 ISSUE DATE: 04/25/2006  
TITLE: DISCOVERY AND ISOLATION OF MISBEHAVING DEVICES IN A DATA STORAGE SYSTEM

SERIAL NUMBER: 10194710 FILING DATE: 07/12/2002  
PATENT NUMBER: 7058957 ISSUE DATE: 06/06/2006  
TITLE: CLUSTER EVENT NOTIFICATION SYSTEM

SERIAL NUMBER: 10142398 FILING DATE: 05/08/2002  
PATENT NUMBER: 7093278 ISSUE DATE: 08/15/2006  
TITLE: REMOTE CONSOLE FOR MONITOR AND CONTROL OF SYSTEM FIRMWARE

SERIAL NUMBER: 10237432 FILING DATE: 09/06/2002  
PATENT NUMBER: 7100089 ISSUE DATE: 08/29/2006  
TITLE: DETERMINING DIFFERENCES BETWEEN SNAPSHOTS

SERIAL NUMBER: 10142402 FILING DATE: 05/08/2002  
PATENT NUMBER: 7111157 ISSUE DATE: 09/19/2006  
TITLE: SPURIOUS INPUT DETECTION FOR FIRMWARE

SERIAL NUMBER: 10226762 FILING DATE: 08/22/2002  
PATENT NUMBER: 7124324 ISSUE DATE: 10/17/2006  
TITLE: METHOD OF TESTING FIBRE CHANNEL PORTS IN A STORAGE SERVER AT FULL BANDWIDTH WITHOUT CONNECTION TO EXTERNAL DEVICES

SERIAL NUMBER: 10226823 FILING DATE: 08/21/2002  
PATENT NUMBER: 7146521 ISSUE DATE: 12/05/2006  
TITLE: PREVENTING DAMAGE OF STORAGE DEVICES AND DATA LOSS IN A DATA STORAGE SYSTEM

SERIAL NUMBER: 10773699 FILING DATE: 02/06/2004  
PATENT NUMBER: 7155635 ISSUE DATE: 12/26/2006  
TITLE: HANDLING LINK FAILURES IN REMOTE MIRRORING APPLICATIONS USING SNAPSHOTS

SERIAL NUMBER: 09755254 FILING DATE: 01/04/2001  
PATENT NUMBER: 7162654 ISSUE DATE: 01/09/2007  
TITLE: ISOLATION OF 12C BUSES IN A MULTIPLE POWER DOMAIN ENVIRONMENT USING SWITCHES

SERIAL NUMBER: 10655961 FILING DATE: 09/04/2003  
PATENT NUMBER: 7165156 ISSUE DATE: 01/16/2007  
TITLE: READ-WRITE SNAPSHOTS

SERIAL NUMBER: 10655963 FILING DATE: 09/04/2003  
PATENT NUMBER: 7191304 ISSUE DATE: 03/13/2007  
TITLE: EFFICIENT AND RELIABLE VIRTUAL VOLUME MAPPING

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020571/0664 PAGE 5

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## PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

02/28/2008  
500475511

SUBMISSION TYPE:

NEW ASSIGNMENT

NATURE OF CONVEYANCE:

CHANGE OF NAME

## CONVEYING PARTY DATA

Name	Execution Date
3PARdata, Inc.	07/31/2007

## RECEIVING PARTY DATA

Name:	3PAR Inc.
Street Address:	4245 Technology Drive
City:	Fremont
State/Country:	CALIFORNIA
Postal Code:	94538

## PROPERTY NUMBERS Total: 39

Property Type	Number
Application Number:	09751649
Application Number:	09883681
Application Number:	10138990
Application Number:	10194606
Application Number:	10227077
Application Number:	10642379
Application Number:	10655951
Application Number:	11173101
Application Number:	11269024
Application Number:	11269399
Application Number:	11280828
Application Number:	11552107
Application Number:	11608241
Application Number:	11614031
Application Number:	11626265

OP \$1560.00 09751649

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Application Number:	11681738
Application Number:	11738396
Patent Number:	6502702
Patent Number:	6657868
Patent Number:	6658478
Patent Number:	6677831
Patent Number:	6823442
Patent Number:	6833634
Patent Number:	6833995
Patent Number:	6965957
Patent Number:	6973484
Patent Number:	7032093
Patent Number:	7036033
Patent Number:	7036042
Patent Number:	7058957
Patent Number:	7093278
Patent Number:	7100089
Patent Number:	7111157
Patent Number:	7124324
Patent Number:	7146521
Patent Number:	7155635
Patent Number:	7162654
Patent Number:	7165156
Patent Number:	7191304

## CORRESPONDENCE DATA

Fax Number: (408)382-0481

*Correspondence will be sent via US Mail when the fax attempt is unsuccessful.*

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Correspondent Name: Patent Law Group LLP

Address Line 1: 2635 North First St., Suite 223

Address Line 4: San Jose, CALIFORNIA 95134

ATTORNEY DOCKET NUMBER:

3PD-GEN

NAME OF SUBMITTER:

David C. Hsia

Total Attachments: 8

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